REMARKS

This paper is in response to the Final Office Action notified April 18, 2008, with reference to the above identified application.

Claims 1 to 28 are pending in this application.

Claims 1, 3 to 8, 10, 12 to 17, 19, 21 to 26 and 28 stand rejected under 35 USC 103(a) as being unpatentable over Applicants Admitted Prior Art (hereinafter referred to as AAPA), in view of Ridings (US 6,615,310). Reconsideration is requested.

The claimed invention provides a method of detecting changes in a continuous stream of channel associated signalling (CAS) data for a plurality of communications channels (claim 1). The invention also provides a computer software product enabled to cause a computer to execute such a method (claim 10), a processor and memory arrangement for use in performing such a method (claim 19). A further aspect of the invention provides a communication network node comprising such a processor and memory arrangement (claim 28).

The invention recognizes and solves problems associated with the AAPA. The AAPA relates to a method of detecting changes in a continuous stream of CAS data for a plurality of communications channels. In particular, according to the method of the AAPA, a block of CAS data is written to a first ingress buffer and a next block of CAS data is written to a second ingress buffer. This process continues in a loop, with blocks of CAS data being written to alternate buffers.

According to the method of the AAPA, a processing core only begins the process of detecting changes in a block of CAS data after the block has been completely written to a buffer. This provides the processing core with just 4ms in which to complete the change detecting process for that entire block.

The process of detecting changes in an entire block of CAS data is computationally intensive and this prevents the processing core from performing other tasks. Furthermore, because a new block of CAS data is always being written to one of the two ingress buffers, there is a need to maintain a copy of a

previous block of CAS data in a status array for comparison purposes. This copying process consumes additional computational resource.

The invention addresses the above described problems by breaking each block of CAS data into "a plurality of rows" and performing the comparison process after "each" row of a block has been written. Thus, in contrast with the AAPA, the comparing of a first row of a block is commenced before the last row of the block has been written.

In essence, the invention recognizes that the known method of detecting changes in a stream of CAS data can be improved upon by dividing the blocks of CAS data into a plurality of rows *and by performing the comparison process on a row by row basis immediately after they are written*. In this way, the process of detecting changes in a block of CAS data is divided up into a plurality of smaller tasks, which can be performed by the processing core in a relatively longer amount of time, and which can be interposed with other tasks to avoid blocking of the processor core.

Thus, the method of claim 1, as well as the related aspects of claim 10 (computer software product), claim 19 (processor and memory arrangement) and claim 28 (communication network node), each differ from the method of the AAPA in that:

(i) blocks of CAS data are written into areas of a circular memory buffer located sequentially after the area occupied by a previous block of CAS data; and

(ii) the comparing of a first row of a block of CAS data is commenced before the last row of the block of CAS data has been written.

With particular regard to feature (ii) above, Examiner has argued that this feature is taught by Ridings, and that it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the feature, as taught by Ridings, into the method of the AAPA. Applicants respectfully disagree.

Ridings relates exclusively to content addressable memory (CAM) devices, particularly for use in data compression methods. Unlike standard memory devices in which a predetermined memory location is accessed and its contents is returned, a

CAM device is arranged to be read using a predetermined data word. The CAM device searches the entire memory for the data word and returns a list of locations where the word was found.

According to Ridings, words of a continuous stream of data which is to be compressed are written into consecutive locations in a CAM device. Before each word is written, the entire memory is searched for occurrences of the word, on the basis of which the stream of data can be compressed.

Applicants submit that Ridings relates to a completely different technical field from that of the present invention and the AAPA. In particular, Ridings relates to data compression, whereas the present invention and the AAPA relate to the field of processing signalling information in communications networks. On this basis alone, a person of ordinary skill in the art of the present invention and the AAPA would not have been drawn to consider the teaching of Ridings in the present context.

Even if a person of ordinary skill in the art of the present invention and the AAPA would have considered the teaching of Ridings, there is neither suggestion nor motivation, either in Ridings or in the knowledge generally available, to combine the cited teachings.

In this regard, Examiner has argued that the required motivation would be to increase the likelihood of matching the current CAM location, thus more efficiently compressing data. However, the method of the AAPA does not involve or contemplate the use of CAM devices, so that this motivation would not apply. Moreover, CAS data blocks always have a standard format which is recognized by standard communication network equipment, so that compression of the data would be disadvantageous.

Applicants also note that Ridings exclusively relates to CAM devices, but such devices would be completely unsuitable for incorporation in the method of the AAPA. In particular, the AAPA involves the detection of changes in CAS data, that is to say the identification of isolated discrepancies in the individual bits of blocks of CAS data. Applicants cannot envisage how a CAM device, as taught by Ridings, could be employed for such a purpose.

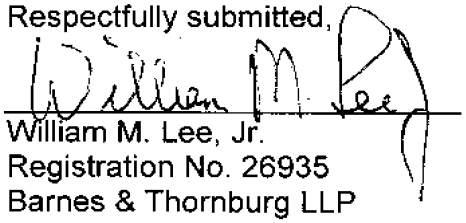
It is therefore respectfully submitted by Applicants that it would not have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teaching of Ridings into the method of the AAPA in such a way as to arrive at the present invention, as claimed in claims 1, 10, 19 and 28. Such claims are submitted to be patentably distinguished from the cited prior art.

Detailed arguments are not presented in respect of the dependent claims, since the relevant rejections are no longer considered pertinent. Nevertheless, the arguments of the Examiner are not accepted.

It is submitted that this application is now in condition for allowance. Such action is respectfully solicited.

June 5, 2008

Respectfully submitted,



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